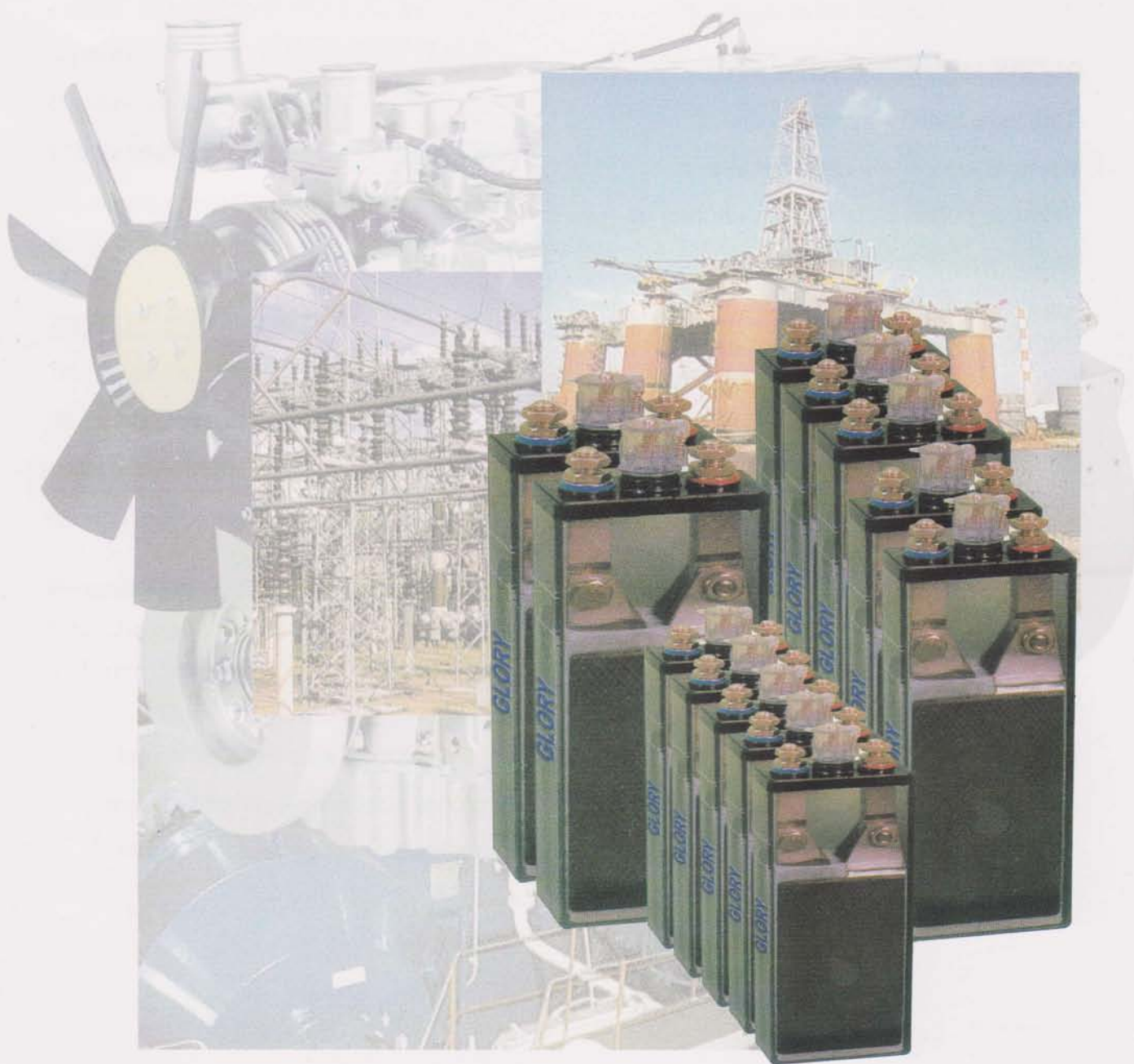


# GLORY

High performance Nickel Cadmium Battery

## For full starting power



# GLORY

## High performance Nickel Cadmium Battery

**GLORY** High Performance Nickel

Cadmium that are specially designed with excellent Characteristics, capable of withstanding long starting sequence for your back up generator

**GLORY** High Performance Nickel

Cadmium battery works by an electrochemical reaction between a nickel as positive plate and cadmium as negative plate immersed in an alkaline solution

This excellent Characteristics of the electrochemical reaction made the nickel cadmium battery to be the supreme choice over other type. The robust moulded polypropylene casing made excellent to resist most chemical and mechanical abuse

**GLORY** has a network of specially trained service and support engineers who has always been available to assist and identify our customers' precise needs and ensure that the most effective choice of battery for various application throughout the region.

### BENEFITS

- ▲ Chemical and Mechanical abuse  
grease, oil & mechanical impact
- ▲ Electrical stress  
withstand overcharging and stand up to reverse polarity
- ▲ High energy storage  
high starting power and capable of withstanding long starting sequence
- ▲ No sudden death  
due to poor state of charging or shorting in the batteries
- ▲ Designed life up to 20 years  
wide range of operating temperature  
low maintenance



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## High performance Nickel Cadmium Battery

### CHARGING

The battery can be charged by all normal methods. Generally, the batteries is parallel operated with the charger and the load is charged at 1 constant voltage. In operations where the battery is charged separately from the load, constant current or declining current charging is recommended. Boost charge or overcharging will not damage the battery but, excessive charging will increase water consumption to certain degree.

### INITIAL CHARGING

The whole charge should preferably be carried out at a constant current. The charging time is inversely proportional to the current which is set by the current limit of the charging equipment.

Recommended charging voltage for KPX Series:

Float charge	: 1.38	1.40V/cell
High-rate charge	: 1.46	1.48V/cell

### CONSTANT CURRENT CHARGING

Normal charge

0.2C<sub>5</sub> amperes for a 8 hours

Fast recharge

0.4C<sub>5</sub> amperes for 2.5 hours

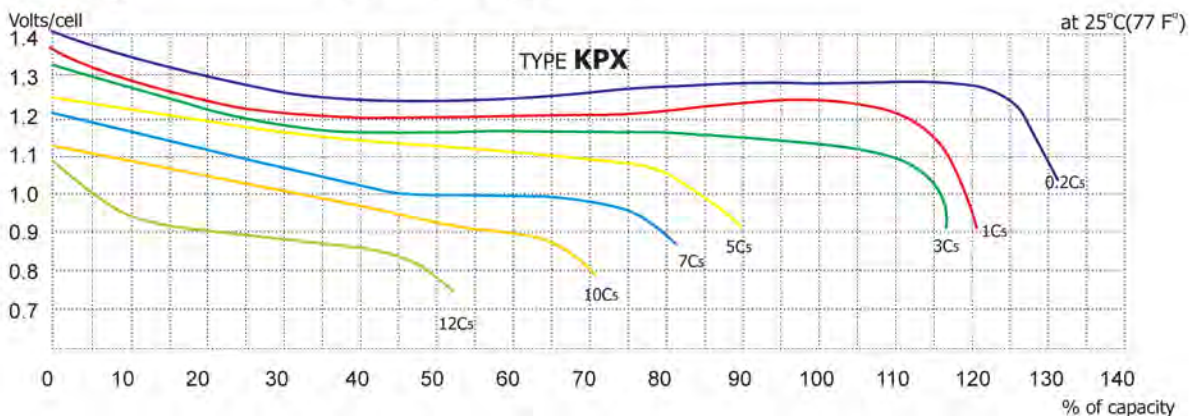
followed by 0.2C<sub>5</sub> amperes for 2.5 hours

Minimum rate : 2.0mA per AH

### DISCHARGE PERFORMANCE

Nominal voltage : 1.2V/cell

The tabulated discharge performance data and rated capacities C<sub>5</sub> are valid for cells fully charged according to IEC Publication 60623, clause 4.



# GLORY

## High Performance Nickel Cadmium Battery

Available Amperes When Cells Are Fully Charged At 20+5°C

End Voltage of 1.14V / Cell

CELL TYPE	Capacity (AH)	Minutes				Seconds		
		10	5	3	1	10	5	1
KPX 10	10	40	42	48	65	76	83	90
KPX 20	20	68	78	84	126	141	158	165
KPX 30	30	97	111	124	185	212	230	241
KPX 40	40	127	142	166	247	280	304	321
KPX 50	50	152	170	201	302	347	371	495
KPX 60	60	216	229	251	374	445	485	498
KPX 70	70	223	252	281	436	506	558	579
KPX 80	80	254	288	322	497	576	635	652
KPX 90	90	271	295	338	510	592	651	675
KPX 100	100	309	356	414	608	723	795	812
KPX 110	110	339	402	458	687	822	887	914
KPX 120	120	361	428	488	732	876	946	975
KPX 130	130	391	463	528	792	948	1023	1054
KPX 140	140	419	499	579	849	998	1074	1125
KPX 170	170	508	620	691	1045	1190	1264	1350
KPX 190	190	565	697	777	1148	1344	1428	1512
KPX 210	210	641	770	860	1285	1556	1660	1745

End Voltage of 1.10V / Cell

CELL TYPE	Capacity (AH)	Minutes				Seconds		
		10	5	3	1	10	5	1
KPX 10	10	45	53	65	76	89	93	99
KPX 20	20	84	102	122	143	168	175	182
KPX 30	30	123	151	180	216	259	268	274
KPX 40	40	160	200	243	286	329	341	359
KPX 50	50	194	243	293	335	410	442	456
KPX 60	60	256	320	375	435	508	529	551
KPX 70	70	287	351	431	502	578	599	624
KPX 80	80	328	402	491	574	661	685	713
KPX 90	90	341	425	513	598	682	697	725
KPX 100	100	412	500	605	714	909	949	989
KPX 110	110	448	556	672	788	893	981	1039
KPX 120	120	485	602	728	854	968	1012	1071
KPX 130	130	525	652	789	926	1050	1098	1163
KPX 140	140	572	697	850	980	1120	1178	1250
KPX 170	170	694	845	1050	1180	1366	1435	1514
KPX 190	190	775	941	1142	1310	1510	1592	1689
KPX 210	210	869	1076	1289	1513	1798	1878	1965

# GLORY

## High Performance Nickel Cadmium Battery

Available Amperes When Cells Are Fully Charged At 20+5°C

End Voltage of 1.05V / Cell

CELL TYPE	Capacity (AH)	Minutes				Seconds		
		10	5	3	1	10	5	1
KPX 10	10	48	66	85	109	131	143	154
KPX 20	20	92	128	161	210	256	275	302
KPX 30	30	136	188	238	305	380	411	458
KPX 40	40	185	241	311	401	520	564	603
KPX 50	50	221	295	397	496	652	706	746
KPX 60	60	278	375	451	600	802	866	920
KPX 70	70	322	427	517	693	887	963	1060
KPX 80	80	368	489	591	765	1014	1101	1205
KPX 90	90	394	502	621	813	1090	1156	1254
KPX 100	100	450	610	779	992	1302	1412	1501
KPX 110	110	490	662	838	1074	1413	1535	1633
KPX 120	120	540	711	920	1189	1580	1701	1798
KPX 130	130	585	770	962	1330	1662	1897	1996
KPX 140	140	630	820	998	1380	1725	1968	2075
KPX 170	170	758	1002	1171	1670	2170	2345	2489
KPX 190	190	850	1120	1338	1850	2460	2656	2812
KPX 210	210	984	1250	1488	2130	2804	3014	3275

End Voltage of 1.0V / Cell

CELL TYPE	Capacity (AH)	Minutes				Seconds		
		10	5	3	1	10	5	1
KPX 10	10	51	82	102	121	184	198	201
KPX 20	20	100	162	201	240	360	389	401
KPX 30	30	153	243	298	355	533	567	599
KPX 40	40	199	318	389	463	710	750	789
KPX 50	50	243	395	473	587	879	927	984
KPX 60	60	302	460	587	705	1088	1123	1178
KPX 70	70	347	521	681	772	1253	1311	1362
KPX 80	80	400	600	780	889	1423	1498	1560
KPX 90	90	431	642	802	904	1521	1597	1674
KPX 100	100	501	788	950	1102	1798	1880	1967
KPX 110	110	553	850	1027	1141	1977	2042	2107
KPX 120	120	606	931	1125	1255	2178	2250	2321
KPX 130	130	656	1009	1220	1361	2362	2440	2526
KPX 140	140	698	1012	1311	1460	2513	2610	2701
KPX 170	170	845	1189	1609	1783	3095	3196	3289
KPX 190	190	943	1350	1799	1950	3378	3455	3556
KPX 210	210	1098	1500	1987	2204	3710	3809	3989

# GLORY

## High Performance Nickel Cadmium Battery

Available Amperes when cells are fully charged at 20+5°C

End Voltage of 0.85V / Cell

Model	Capacity (AH)	Minutes			Seconds					
		10	5	3	90	60	30	10	5	1
KPX 10	10	48	73	105	113	134	141	152	164	178
KPX 20	20	99	158	216	242	280	306	328	353	374
KPX 30	30	148.5	237	301	363	425	459	492	529	561
KPX 40	40	198	316	413	485	562	612	657	706	748
KPX 50	50	247	395	502	606	703	765	821	882	935
KPX 60	60	297	474	619	727	843	918	985	1059	1122
KPX 70	70	345	553	721	890	982	1071	1149	1235	1309
KPX 80	80	396	631	826	970	1121	1224	1314	1412	1496
KPX 90	90	445	712	928	1091	1264	1377	1478	1571	1652
KPX 100	100	496	790	1004	1213	1406	1530	1642	1764	1870
KPX 110	110	545	865	1100	1330	1550	1684	1833	1940	2050
KPX 120	120	594	948	1238	1454	1686	1836	1970	2118	2247
KPX 130	130	643	1027	1301	1572	1820	1982	2158	2293	2430
KPX 140	140	691	1106	1442	1693	1964	2140	2298	2470	2618
KPX 170	170	843	1341	1706	2062	2391	2603	2784	2995	3172
KPX 190	190	942	1501	1907	2304	2665	2907	3119	3351	3553
KPX 210	210	1041	1659	2108	2547	2952	3213	3448	3704	3927

End Voltage of 0.65V / Cell

Model	Capacity (AH)	Minutes			Seconds					
		10	5	3	90	60	30	10	5	1
KPX 10	10	53	85	107	165	176	201	238	247	261
KPX 20	20	108	173	221	341	376	407	493	506	530
KPX 30	30	162	259	331	512	564	611	739	759	797
KPX 40	40	216	346	442	683	752	815	986	1012	1063
KPX 50	50	270	432	552	853	935	1009	1228	1265	1321
KPX 60	60	324	513	663	1021	1125	1217	1474	1518	1592
KPX 70	70	378	585	773	1176	1312	1415	1713	1661	1856
KPX 80	80	432	362	884	1362	1504	1619	1967	2018	2123
KPX 90	90	463	512	960	1456	1598	1752	2103	2157	2239
KPX 100	100	486	759	1105	1535	1683	1816	2201	2274	2362
KPX 110	110	570	690	1242	1685	1850	1998	2427	2500	2590
KPX 120	120	538	864	1326	1706	1867	2018	2443	2527	2631
KPX 130	130	608	950	1458	1894	2079	2249	2721	2818	2945
KPX 140	140	648	1026	1547	2040	2239	2434	2948	3036	3174
KPX 170	170	756	1170	1878	2551	2624	2830	3072	3315	3687
KPX 190	190	914	1468	2085	2876	3173	3426	4153	4291	4454
KPX 210	210	1015	1641	2328	3236	3542	3815	4326	4783	4968

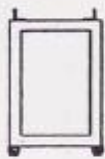
# GLORY

## High Performance Nickel Cadmium Battery

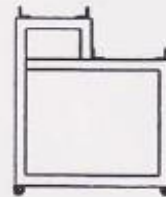
### Cell Dimensions of Sintered Super High Rate Battery

Cell Type	Capacity (AH)	Width	Length	Height	Weight (filled)	Electrolyte Volume (liter)
KPX 10	10	81	34	245	1.07	0.13
KPX 20	20	137	61	277	2.75	1.5
KPX 30	30	137	61	277	2.8	1.5
KPX 40	40	137	61	277	3.3	1
KPX 50	50	137	61	277	3.5	0.8
KPX 60	60	137	61	277	3.8	0.5
KPX 70	70	137	61	277	4	0.4
KPX 80	80	139	71	298	4.3	0.33
KPX 90	90	139	71	298	4.3	0.33
KPX 100	100	139	71	298	4.3	0.31
KPX 110	110	141	71	295	5.5	0.305
KPX 120	120	141	71	295	5.5	0.25
KPX 130	130	141	71	295	5.8	1.4
KPX 140	140	136	77	380	6.6	1.2
KPX 170	170	165	105	380	9.5	1.97
KPX 190	190	165	105	380	10	1.95
KPX 210	210	165	105	380	10.5	1.9

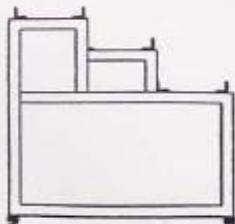
### BATTERY RACK ARRANGEMENT



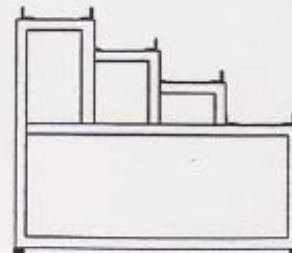
1 TIER, 1 STEP



1 TIER, 2 STEPS



1 TIER, 3 STEPS



1 TIER, 4 STEPS